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EXAMINER

PILAPITIYA, NALIN B

ART UNIT

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4154

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/579,063	<b>Applicant(s)</b> BACHMANN ET AL.	
	<b>Examiner</b> NALIN PILAPITIYA	<b>Art Unit</b> 4154	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 25-48 is/are pending in the application.
- 4a) Of the above claim(s) 1-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 25-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. Some of the document numbers of the US references cited in the IDS filed on 5/11/2006 are incorrect (note references in strike-through). Applicant is advised to file a new IDS with the correct numbering if the references are to be considered.

### ***Claim Objections***

2. Claim 48 is objected to because of the following informalities: the term "one of the methods" (line 5) should be replaced with "one of the steps" in order to be consistent with claim terminology. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 47-48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 47, it is not clear if applicant is claiming an apparatus or a method; note that although the preamble is directed to an apparatus, the claim limitations are method steps. A single claim covering both an apparatus and a method of use of that apparatus is invalid because such a claim is not sufficiently precise to provide competitors with an accurate determination of the 'metes and bounds' of protection involved and is ambiguous and properly rejected under section 112, paragraph 2.

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Claim 48 recites a mobile terminal being adapted to perform one of the methods according to claim 25. However, claim 25 clearly states that the steps are performed by a context transfer manager (e.g., “receiving at a context transfer manager”, “determining by the context transfer manager”, “generating by the context transfer manager”, and “wherein the context transfer manager performs”). Therefore, it is unclear how the mobile terminal performs one of the methods already performed by the context transfer manager. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 25 – 38, 40, and 43 – 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lakshmi Narayanan et al. (Pub. No.: US 2003/0103496 A1) in view of Prehofer (Pub. No.: US 2006/0099952 A1).

Re claim 25, Lakshmi Narayanan discloses a method for a context transfer in a communication network comprising a plurality of heterogeneous access networks, wherein a mobile terminal is attached to one of the access networks, the method comprising the steps of:

generating by the context transfer manager at least one context for the neighboring access networks and the mobile terminal (paragraph 76 and 77),

transmitting by the context transfer manager a context to each of the neighboring access networks and the mobile terminal (paragraph 76 and 77),

wherein the generation of the at least one context is based on capabilities and parameters associated to the mobile terminal and capabilities and parameters of the neighboring access networks taking into account the respective access technology (paragraphs 33-35, 57, 59, 73), and

wherein the context transfer manager common to the plurality of heterogeneous access networks in the communication network performs the context transfers related to said mobile terminal (paragraphs 57, 75-81).

Lakshmi Narayanan fails to disclose receiving location information at a context transfer manager, and determining by the context transfer manager neighboring access networks for the mobile terminal based on the location information.

However, Prehofer discloses receiving location information at a context transfer manager (paragraph 129 and 130 and fig. 10),

determining by the context transfer manager neighboring access networks for the mobile terminal based on the location information (paragraphs 140-142, 148-149 and fig. 10, references 36, 70, 72).

Motivation to combine may be gleaned from the prior art contemplated.

Therefore, one skilled in the art would have found it obvious from the combined teachings of “Lakshmi Narayanan” and “Prehofer” as a whole to produce the invention as claimed with a reasonable expectation of achieving seamless handover across different access technologies.

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Re claim 46, recites a context transfer manager version corresponding to the above method claim and, therefore, the analysis for this rejection has already been done.

Re claim 47, recites a context transfer manager version configured to perform a method version corresponding to the above method claim and, therefore, the analysis for this rejection has already been done.

Re claim 48, both Lakshmi Narayanan and Prehofer discloses a mobile terminal in a communication network comprising a plurality of heterogeneous access networks, wherein the mobile terminal is attached to one of the access networks, the mobile terminal being adapted to perform on of the methods according to claim 25 (Lakshmi Narayanan: paragraph 59; the MN determines neighboring access networks based on location information; and Prehofer: paragraph 136 and 130 and fig.10; the mobile device contains a context determination unit that comprises a positioning unit that can receive location information).

Motivation to combine may be gleaned from the prior art contemplated. Therefore, one skilled in the art would have found it obvious from the combined teachings of Lakshmi Narayanan and Prehofer as a whole to produce the invention as claimed with a reasonable expectation of achieving seamless handover across different access technologies.

Re claim 26, Lakshmi Narayanan discloses the method according to claim 25, further comprising the step of the mobile terminal receiving at the mobile terminal a beacon signal indicating the presence of another access network, performing a handover

from the current access network to the new access network from which the beacon signal is received (paragraphs 57, 59 - 62).

Re claim 27, Lakshmi Narayanan discloses the method according to claim 25, wherein the context generated for each of the neighboring access networks and the mobile terminal comprises a static or temporary identifier of the mobile terminal (paragraph 60; a static or temporary identifier of the mobile terminal is inherently present given that each possible domain have pre-authorized the mobile terminal and the context transfer is simple relocation of state information).

Re claim 28, Lakshmi Narayanan discloses the method according to claim 27, wherein the static or temporary identifier is used by a context manager in the new access network to associate the mobile terminal to its context received from the context transfer manager (paragraphs 57-69; a static or temporary identifier of the mobile terminal is inherently present given that each possible domain have pre-authorized the mobile terminal and the context transfer is simple relocation of state information).

Re claim 29, Lakshmi Narayanan discloses the method according to claim 27, wherein the mobile terminal includes the static or temporary identifier in the data transmitted to the new access network (paragraphs 57-69; a static or temporary identifier transmitted is inherently present given that each possible domain have pre-authorized).

Re claim 30, Lakshmi Narayanan discloses the method according to claim 25, further comprising the step of pre-configuring the mobile terminal based on the context received from the context transfer manager (paragraphs 35, 57-69).

Re claim 31, both Lakshmi Narayanan and Prehofer discloses the method according to claim 25, further comprising the step of receiving status information from the mobile terminal at the context transfer manager, wherein the status information indicates the quality of service achieved in the current access network and/or indicates unsuccessful access attempts to at least one other access network than the current access network (Lakshmi Narayanan: paragraphs 33-34, 42; Prehofer: paragraphs 31, 120 142).

Motivation to combine may be gleaned from the prior art contemplated. Therefore, one skilled in the art would have found it obvious from the combined teachings of “Lakshmi Narayanan” and “Prehofer” as a whole to produce the invention as claimed with a reasonable expectation of achieving seamless handover across different access technologies.

Re claim 32, Prehofer discloses the method according to claim 31, wherein the step of determining neighboring access networks comprises adapting a selection algorithm used for determining the neighboring access networks based on the status information from the mobile terminal (paragraphs 31, 120 142).

Motivation to combine may be gleaned from the prior art contemplated. Therefore, one skilled in the art would have found it obvious from the combined teachings of “Lakshmi Narayanan” and “Prehofer” as a whole to produce the invention as claimed with a reasonable expectation of achieving seamless handover across different access technologies.



Re claim 33, Lakshmi Narayanan discloses the method according to claim 25, further comprising the step of storing information on failed access attempts to access networks reported by the mobile terminal at the context transfer manager (paragraph 42).

Re claim 34, Lakshmi Narayanan discloses the method according to claim 25, wherein the capabilities and parameters associated to the mobile client comprise at least one of authentication, authorization and accounting parameters comprising static and/or temporary terminal identifiers, user preferences comprising the requirements for the terminal's communications, guaranteed service quality parameters, and or access permissions to services, session data comprising encryption keys, seeds, ciphers and/or header compression information, terminal capabilities comprising information on the display, network interfaces, processing power, supported applications and/or video/audio codecs (paragraphs 30, 33-35).

Re claim 35, Lakshmi Narayanan discloses the method according to claim 25, wherein the capabilities and parameters of the neighboring access network comprise at least one of access technology specific attributes comprising a radio frequency, data rates, channels, and/or coding schemes, access network specific attributes comprising cryptographic capabilities of the respective access network, an access network identifier, supported quality of service mechanisms, available traffic classes, local services, information portals, and/or public transportation information (paragraph 33).

Re claim 36, Prehofer discloses the method according to claim 25, wherein the location information received by the context transfer manager is received in a paging message transmitted by the mobile terminal or by a signaling message from an

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authentication server in the home domain of the context transfer manager after an authentication procedure performed between the mobile terminal and the authentication server (paragraphs 130-131).

Motivation to combine may be gleaned from the prior art contemplated. Therefore, one skilled in the art would have found it obvious from the combined teachings of “Lakshmi Narayanan” and “Prehofer” as a whole to produce the invention as claimed with a reasonable expectation of achieving seamless handover across different access technologies.

Re claim 37, Prehofer discloses the method according to claim 25, wherein the location information is based on a geographical location obtained from a location determining device or a network related location determined based on a network address and/or network prefix (paragraph 130).

Motivation to combine may be gleaned from the prior art contemplated. Therefore, one skilled in the art would have found it obvious from the combined teachings of “Lakshmi Narayanan” and “Prehofer” as a whole to produce the invention as claimed with a reasonable expectation of achieving seamless handover across different access technologies.

Re claim 38, Lakshmi Narayanan discloses the method according to claim 26, wherein the handover is performed upon having received context information from the context transfer manager related to the new access network (paragraph 57 and 75-76).

Re claim 40, Lakshmi Narayanan discloses the method according to claim 25, further comprising the step of an authentication server in a neighboring access network

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receiving the context from the context transfer manager performing a registration and/or authentication procedure of the mobile terminal with the neighboring access network using the received context information (Fig. 3; reference 325; paragraphs 30, 34, 60, 74; note that this is inherently present in AAA servers).

Re claim 43, Lakshmi Narayanan discloses the method according to claim 25, wherein the context transfer manager resides in a visited communication network (paragraph 76 and fig. 1; AR1/PS1 and AR2/PS2 can be construed as context transfer managers).

Re claim 44, Lakshmi Narayanan discloses the method according to claim 43, further comprising the step of transmitting by a context transfer manager in a home communication network of the mobile terminal data in a home communication network of the mobile terminal data relevant for the generation of the at least one context to the context transfer manager of the visited communication network (paragraphs 57, 75-81).

Re claim 45, Lakshmi Narayanan discloses the method according to claim 25, further comprising the step of receiving at a context manager in an access network the context from the context transfer manager, wherein the context manager maintains no connection to another context manager in another access network (paragraph 75-81 and fig.3; AR1 can be construed as a context transfer manager and PS 1 can be construed as a context manager).

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7. **Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lakshmi Narayanan et al. (Pub. No.: US 2003/0103496 A1) in combination with Prehofer (Pub. No.: US 2006/0099952 A1) as applied to claim 25 above and further in view of Trossen et al. (Pub. No.: US 2003/0204599 A1).**

Re claim 39, Lakshmi Narayanan in combination with Prehofer disclose the method of claim 25, but fail to disclose wherein a markup-language based data format is used to describe the context transferred from the context transfer manager to the plurality of access networks and the mobile terminal.

However, Trossen discloses the method according to claim 25, wherein a markup-language based data format is used to describe the context transferred from the context transfer manager to the plurality of access networks and the mobile terminal (paragraph 32).

Motivation to combine may be gleaned from the prior art contemplated. Therefore, one skilled in the art would have found it obvious from the combined teachings of “Lakshmi Narayanan in view of Prehofer” and “Trossen” as a whole to produce the invention as claimed with a reasonable expectation of utilizing a common standard language for the implementation of data for the benefit of efficient handover across different access technologies.

8. **Claims 41 – 42 rejected under 35 U.S.C. 103(a) as being unpatentable over Lakshmi Narayanan et al. (Pub. No.: US 2003/0103496 A1) in combination with Prehofer (Pub. No.: US 2006/0099952 A1) as applied to claim 40 above and further in view of Bossoli et al. (Pub. No.: US 2004/0233866 A1).**

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Re claim 41, Lakshmi Narayanan in combination with Prehofer disclose the method of claim 40, but fail to disclose wherein the registration and/or authentication procedure comprises registering a security key of the mobile terminal

However, Bossoli discloses wherein the registration and/or authentication procedure comprises registering a security key of the mobile terminal (paragraph 73, a call ID can be construed as a security key).

Motivation to combine may be gleaned from the prior art contemplated. Therefore, one skilled in the art would have found it obvious from the combined teachings of “Lakshmi Narayanan in view of Prehofer” and “Bossoli” as a whole to produce the invention as claimed with a reasonable expectation of providing authorization and encryption for the benefit of secure handover across different access technologies.

Re claim 42, in the obvious combination, Bossoli discloses further comprising the step of using by the mobile terminal the registered security key for communication upon attaching to the neighboring access network in which the security key has been registered (paragraph 74 – 80; the communication uses a call ID, which can be construed as a security key).

Motivation to combine may be gleaned from the prior art contemplated. Therefore, one skilled in the art would have found it obvious from the combined teachings of “Lakshmi Narayanan in view of Prehofer” and “Bossoli” as a whole to produce the invention as claimed with a reasonable expectation of providing

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authorization and encryption for the benefit of secure handover across different access technologies.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NALIN PILAPITIYA whose telephone number is (571)270-7122. The examiner can normally be reached on Monday - Friday 7:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on (571)272-7332. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/NALIN PILAPITIYA/  
Examiner, Art Unit 4154

/Vu Le/  
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